WORLD INTELLECTUAL PROPERTY ORGANIZATION . International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION_TREATY (PCT) (51) International Patent Classification 7: A61K 48/00, C07K 14/705, A61K 38/17, (11) International Publication Number: WO 00/20037 G01N 33/68 A1 (43) International Publication Date: (21) International Application Number: 13 April 2000 (13.04.00) PCT/SE99/01784 (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, (22) International Filing Date: 6 October 1999 (06.10.99) ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, IP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, LOV, CD, CT, CT, TG, ZW). (30) Priority Data: 9803393-9 6 October 1998 (06.10.98) SE UZ, VIN, 1U, ZA, ZW, AKIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD; RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK; ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). (71) Applicants (for all designated States except US): KAROLIN-SKA INNOVATIONS AB [SE/SE]; S-171 77 Stockholm (SE). PHARMACIA & UPJOHN COMPANY [US/US]; 301 Henrietta Street, Kalamazoo, MI 49001 (US). (72) Inventors; and Peter, G. [GR/SE]; Tullinge Strand 96, S-146 54 Tullinge Published With international search report. (SE). UNDÉN, Anne, Birgitte [NO/SE]: Gandviksvägen 3, Before the expiration of the time limit for amending the S-181 62 Djursholm (SE). TOFTGARD, Rune [SE/SE]; claims and to be republished in the event of the receipt of Sätragårdsvägen 209, S-127 36 Skärholmen (SE). RAH-NAMA, Fahimeh [SE/SE]: Stadshagsvägen 18 3 tr, S-112 50 Stockholm (SE). HOLLINGSWORTH, Robert, E. [US/US]; Glaxo Inc., 5 Moore Drive, Research Triangle (74) Agents: BERG, S., A. et al.; Albihns Patentbyra Stockholm
AB, P.O. Box 5581, S-114 85 Stockholm (SE). (54) Title: A NOVEL COMPONENT IN THE HEDGEHOG SIGNALLING PATHWAY (57) Abstract

The present invention relates to a novel human patched-like gene (PTCH2), which for the first time has been cloned and sequenced. Several alternatively spliced mRNA forms of PTCH2 have been identified, including transcripts lacking segments thought to be involved in sonic hedgehog (SHH) binding and mRNAs with differentially defined 3' terminal exons. Further, the invention also relates to the protein